



## Scrofuloderma Revealing Pott's Disease

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### Abstract

Cutaneous tuberculosis remains a rare infection. Scrofuloderma is tuberculous involvement of the skin by direct extension, usually from underlying tuberculous lymphadenitis. Pott's disease is a dangerous form of skeletal tuberculosis. To the best of our knowledge, scrofuloderma next to the vertebral infectious site has never been reported in the literature, hence the originality of our case who presented scrofuloderma facing the infected vertebrae by the Mycobacterium tuberculosis.

**Keywords:** Pott's disease; Scrofuloderma; Tuberculosis; Skin; Bone

### Introduction

Cutaneous tuberculosis remains a rare infection, with an incidence of 3.5% reported among patients with organ tuberculosis. Scrofuloderma is tuberculous involvement of the skin by direct extension, usually from underlying tuberculous lymphadenitis [1]. Herein, we present a rare case of Pott's disease, which is a dangerous form of skeletal tuberculosis, associated with scrofuloderma facing the affected vertebrae. We recall that simultaneous presentation of tuberculosis of bone and skin is uncommon which makes our patient an original case [2].

### Case Presentation

A 56-year-old Moroccan patient, with no previous medical history presented to our department with a small cutaneous ulceration, of one year of evolution, in front of the 4<sup>th</sup> thoracic vertebra, bringing back a serous liquid. The patient report, that he had a small painless mass of the back before the installation of the ulceration, with a moderate spinal pain. He reported also an intermittent fever with night sweats and a weight loss of 13 kg over 1 year. We noted that the patient has received a BCG vaccination at birth as part of the national Moroccan immunization program.

Physical examination found a cachectic patient with a BMI of 16 kg/m<sup>2</sup>. Dermatological examination found a longitudinal ulceration with erythematous border, indurated and covered with a meliceric crust, 2 cm long, bringing back a serous liquid, located in the upper 1/3 of the back in front of the 4<sup>th</sup> thoracic vertebra (Figure 1). There was a second lesion, which was a purple nodule, 4.5 cm long, retracted in places with an upper ulceration, bringing a serohematic liquid, located on the posterior face of the right arm (Figure 2). There were no palpable lymph nodes.

Skin biopsy of the ulcerated back lesion showed gigantocellular granuloma with caseiform necrosis and the presence of BAAR (Figure 3). Laboratory examinations showed no abnormal findings except for a positive QuantiFERON. The tuberculin skin test was positive. Chest X-ray was normal. Spinal MRI showed pre-vertebral tissue thickening at T3, T4 and T5 associated with T4 spondylitis and infiltration of the costovertebral homolateral junction. A vertebral biopsy was performed confirming the tubercular origin. Antituberculous therapy was started, consisting of isoniazid, rifampin, ethambutol and pyrazinamide. On the third month of the therapy, his lesions showed marked improvement and he is still being followed-up.

### Discussion

Tuberculosis (TB) is caused by Mycobacterium tuberculosis which is a facultative intracellular, aerobic, Acid Fast Bacilli (AFB) bacterium. Extrapulmonary tuberculosis constitutes 15% to 20% of all cases of tuberculosis. According to the World Health Organization (WHO), most cases are estimated to be in Asia and Africa (58% and 27% respectively), with the highest incidence in India and China, together accounting for 38% of the total number of cases [3]. In Morocco, TB is a major health problem [4].

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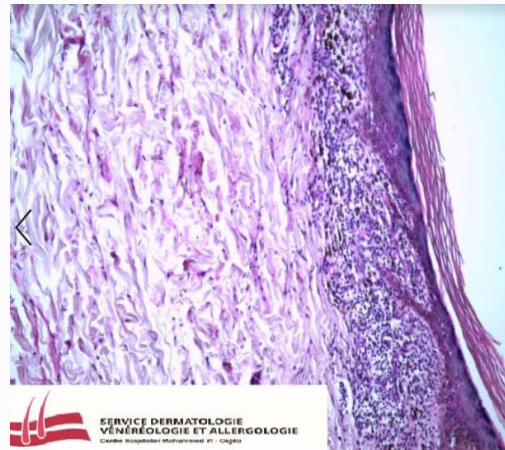


**Figure 1:** Cutaneous ulceration of the back (Facing the 4<sup>th</sup> thoracic vertebra).



**Figure 2:** Longitudinal cutaneous nodule of the arm.

Osteoarticular tuberculosis accounts for 1% to 3% of all tuberculosis patients, while skin tuberculosis constitutes 1% to 2% of all extrapulmonary tuberculosis. Scrofuloderma is one type of skin tuberculosis [5]. It is the most common type in Morocco [4]. It occurs due to direct involvement and breakdown of skin from contiguous tubercular foci—like-infected lymph node or bone [5]. Spinal tuberculosis, also known as Pott disease is the most frequent form, followed by hip and knee joint involvement. The thoracic segment is the most frequent location, followed by lumbar and cervical segments. There are few reports of simultaneous cutaneous and skeletal tuberculosis in immunocompetent patients with skin lesions, such as cutaneous abscesses located away from the bone infection site [2].



**Figure 3:** HES coloration G x400: Epithelioid cell granuloma with caseating necrosis.

The reported cases associating spinal tuberculosis with cutaneous tuberculosis presented cutaneous lesions distant from the vertebral infectious site [1-7].

To the best of our knowledge, cutaneous tuberculosis next to the vertebral infectious site has never been reported in the literature, hence the originality of our case.

## Conclusion

Awareness of this unusual presentation of tuberculosis is essential for early diagnosis and appropriate therapy. A higher index of suspicion is required to make this diagnosis. Prompt and adequate treatment with anti TB drugs ensures rapid cure and prevents/minimizes complications.

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